ABSTRACT

A two component interpenetrating polymer network (IPN) wound dressing material is formed of a biocompatible, hydrophilic first component such as gelatin or polyvinyl alcohol and a biocompatible elastomer such as HydroThane (trademark) by dissolving the components in a common solvent, initiating cross-linking of at least one of the components in the solution, and forming a film, fiber, bead or mesh from the solution. When the first component is a methacrylated gelatin aged for an extended period, e.g. 1 to 8 weeks, the resulting IPN is more stable with a higher tensile strength. Heating of the methacrylated gelatin during aging and/or freeze-drying of the product also increase tensile strength of the product.